

# Surgical Technologists

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## Significant Points

- Training programs last 9 to 24 months and lead to a certificate, diploma, or associate degree.
- Job opportunities are expected to be favorable.
- Hospitals will continue to be the primary employer, although much faster employment growth is expected in offices of physicians and in outpatient care centers, including ambulatory surgical centers.

## Nature of the Work

Surgical technologists, also called scrubs and surgical or operating room technicians, assist in surgical operations under the supervision of surgeons, registered nurses, or other surgical personnel. Surgical technologists are members of operating room teams, which most commonly include surgeons, anesthesiologists, and circulating nurses. Before an operation, surgical technologists help prepare the operating room by setting up surgical instruments and equipment, sterile drapes, and sterile solutions. They assemble both sterile and nonsterile equipment, as well as adjust and check it to ensure it is working properly. Technologists also get patients ready for surgery by washing, shaving, and disinfecting incision sites. They transport patients to the operating room, help position them on the operating table, and cover them with sterile surgical "drapes." Technologists also observe patients' vital signs, check charts, and assist the surgical team with putting on sterile gowns and gloves.

During surgery, technologists pass instruments and other sterile supplies to surgeons and surgeon assistants. They may hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments. Surgical technologists help prepare, care for, and dispose of specimens taken for laboratory analysis and help apply dressings. Some operate sterilizers, lights, or suction machines, and help operate diagnostic equipment.

After an operation, surgical technologists may help transfer patients to the recovery room and clean and restock the operating room.

## Working Conditions

Surgical technologists work in clean, well-lighted, cool environments. They must stand for long periods and remain alert during operations. At times they may be exposed to communicable diseases and unpleasant sights, odors, and materials.

Most surgical technologists work a regular 40-hour week, although they may be on call or work nights, weekends and holidays on a rotating basis.

## Employment

Surgical technologists held about 72,000 jobs in 2002. About three-quarters of jobs for surgical technologists were in hospitals, mainly in operating and delivery rooms. Other jobs were in offices of physicians or dentists who perform outpatient surgery and in outpatient care centers, including ambulatory surgical centers. A few, known as private scrubs, are employed directly by surgeons who have special surgical teams, like those for liver transplants.

## Training, Other Qualifications, and Advancement

Surgical technologists receive their training in formal programs offered by community and junior colleges, vocational schools, universities, hospitals, and the military. In 2002, the Commission on Accreditation of Allied Health Education Programs (CAAHEP) recognized 361 accredited programs. High school graduation normally is required for admission. Programs last 9 to 24 months and lead to a certificate, diploma, or associate degree.

Programs provide classroom education and supervised clinical experience. Students take courses in anatomy, physiology, microbiology, pharmacology, professional ethics, and medical terminology. Other studies cover the care and safety of patients during surgery, sterile techniques, and surgical procedures. Students also learn to sterilize instruments; prevent and control infection; and handle special drugs, solutions, supplies, and equipment.

Most employers prefer to hire certified technologists. Technologists may obtain voluntary professional certification from the Liaison Council on Certification for the Surgical Technologist by graduating from a CAAHEP-accredited program and passing a national certification examination. They may then use the Certified Surgical Technologist (CST) designation. Continuing education or reexamination is required to maintain certification, which must be renewed every 4 years.

Certification may also be obtained from the National Center for Competency Testing. To qualify to take the exam, candidates follow one of three paths: complete an accredited training program, undergo a 2-year hospital on-the-job training program, or acquire seven years of experience working in the field. After passing the exam, individuals may use the designation Tech in Surgery-Certified, TS-C (NCCT). This certification may be renewed every 5 years through either continuing education or reexamination.

Surgical technologists need manual dexterity to handle instruments quickly. They also must be conscientious, orderly, and emotionally stable to handle the demands of the operating room environment. Technologists must respond quickly and know procedures well to have instruments ready for surgeons without having to be told. They are expected to keep abreast of new developments in the field. Recommended high school courses include health, biology, chemistry, and mathematics.

Technologists advance by specializing in a particular area of surgery, such as neurosurgery or open heart surgery. They also



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may work as circulating technologists. A circulating technologist is the “unsterile” member of the surgical team who prepares patients; helps with anesthesia; obtains and opens packages for the “sterile” persons to remove the sterile contents during the procedure; interviews the patient before surgery; keeps a written account of the surgical procedure; and answers the surgeon’s questions about the patient during the surgery. With additional training, some technologists advance to first assistants, who help with retracting, sponging, suturing, cauterizing bleeders, and closing and treating wounds. Some surgical technologists manage central supply departments in hospitals, or take positions with insurance companies, sterile supply services, and operating equipment firms.

### **Job Outlook**

Job opportunities are expected to be favorable. Employment of surgical technologists is expected to grow faster than the average for all occupations through the year 2012 as the volume of surgery increases. The number of surgical procedures is expected to rise as the population grows and ages. As members of the baby boom generation approach retirement age, the over-50 population, who generally require more surgical procedures, will account for a larger portion of the general population. Technological advances, such as fiber optics and laser technology, will also permit new surgical procedures to be performed.

Hospitals will continue to be the primary employer of surgical technologists, although much faster employment growth is expected in offices of physicians and in outpatient care centers, including ambulatory surgical centers.

### **Earnings**

Median annual earnings of surgical technologists were \$31,210 in 2002. The middle 50 percent earned between \$26,000 and \$36,740. The lowest 10 percent earned less than \$21,920, and the highest 10 percent earned more than \$43,470. Median annual earnings of surgical technologists in 2002 were \$33,790 in offices of physicians and \$30,590 in general medical and surgical hospitals.

### **Related Occupations**

Other health occupations requiring approximately 1 year of training after high school include dental assistants, licensed practical and licensed vocational nurses, medical and clinical laboratory technicians, and medical assistants.

### **Sources of Additional Information**

For additional information on a career as a surgical technologist and a list of CAAHEP-accredited programs, contact:

► Association of Surgical Technologists, 7108-C South Alton Way, Centennial, CO 80112. Internet: <http://www.ast.org>

For information on becoming a Certified Surgical Technologist, contact:

► Liaison Council on Certification for the Surgical Technologist, 128 S. Tejon St., Suite 301, Colorado Springs, CO 80903. Internet: <http://www.lcc-st.org>

For information on becoming a Tech in Surgery-Certified, contact:

► National Center for Competency Testing, 7007 College Blvd., Suite 250, Overland Park, KS 66211.